

Serial No.: 10/015,757
Atty. Docket No.: P67358US0

REMARKS

The Office Action mailed May 7, 2003, has been carefully reviewed and by this Amendment, Applicant has canceled claims 2 and 9, amended claims 1, 5 and 11, and added claim 14. Claims 1, 3-8 and 10-14 are pending in the application. In view of the amendments and remarks contained herein, favorable reconsideration in this application is respectfully requested.

The Examiner rejected claims 1, 3, 5, 6, 8-10, 12 and 13 under 35 U.S.C 103(a) as being unpatentable over U.S. Patent No. 5,534,728 to Kim et al. ("Kim"). Also under 35 U.S.C. 103(a), the Examiner rejected claim 2 as being unpatentable over Kim in view of U.S. Patent No. 5,322,764 to Kamiyama et al., and rejected claims 4, 7 and 11 as being unpatentable over Kim in view of Fontana et al., *Corrosion Engineering* ("Fontana").

As set forth in amended claim 1, the present invention is directed to a semiconductor device capable of preventing corrosion of a fine metal wire pattern by adjusting the area of the fine metal wire pattern relative to the area of the overall metal wire pattern of which the fine metal wire pattern is part. Namely, as the area of the fine wire pattern is formed to constitute more than 1% of the total area of all the metal wire patterns formed within the same pattern and electrically connected to each other, corrosion of the fine metal wire pattern can be suppressed.

As set forth in amended claim 5 and new claim 14, the present invention is also directed to a semiconductor device capable of preventing corrosion of a fine metal wire pattern

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within a metal wire pattern by employing dummy metal wire patterns including dummy fine line patterns formed with the same material and pattern as that of the metal wire pattern. In this case, the area of the dummy fine line pattern is formed to be less than 1% of the total area of the dummy metal wire patterns in order to prevent corrosion of the fine metal wire pattern.

As just summarized, the present invention provides a semiconductor device capable of preventing corrosion of the fine metal wire pattern by adjusting an area ratio of the fine metal wire pattern and the dummy fine metal wire pattern. The cited references do not disclose or suggest a semiconductor device capable of preventing corrosion of the fine metal wire pattern by utilizing such area ratios.

Kim discloses the use of a dummy metal line but, as noted by the Examiner, does not teach or suggest the adjustment of particular area ratios between the fine line patterns, the dummy fine line patterns and the total area of the overall pattern within which the fine and dummy fine line patterns are incorporated. Nor does Kim teach or suggest that such adjustment provides particular benefit in suppressing corrosion, as taught by the present invention. With the present clarification of the integrated relationship between the fine and dummy fine line patterns, which are formed at a same overall pattern, as now set forth in amended claims 1 and 5 and new claim 14, Applicant submits that a definitive area of the fine line and dummy fine line patterns in relation to the overall layout of the metal wire pattern is described therein in a manner that distinguishes over the prior art; favorable consideration of these claims is therefore requested.

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Claims 3, 4, 6-8 and 10-13 are also in condition for allowance as claims properly dependent on an allowable base claim. Claim 11 has been amended to depend from new claim 14, obviating the Examiner's need to object to such claim should allowable subject matter be identified. Favorable consideration and allowance of all of the pending claims is requested.

With the amendments contained herein, the application is in condition for allowance. Should the Examiner have any questions or comments, the Examiner is cordially invited to telephone the undersigned attorney so that the present application can receive an early Notice of Allowance.

Respectfully submitted,

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Date: August 6, 2003
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